

ABSTRACT OF THE DISCLOSURE

An air/fuel pre-mixer for a gas turbine combustor and a method of pre-mixing air and fuel for a combustor are provided. In one embodiment the pre-mixer includes a first annular premix fuel manifold disposed upstream of the combustor and an annular member concentric with the first premix fuel manifold. Together the annular premix fuel manifold and the annular member define a first venturi shaped air/fuel pre-mix volume between them that has a throat. At or upstream from the throat ,the first premix fuel manifold has a plurality of pores whereby the fuel is injected from the first premix fuel manifold to mix with air in the first pre-mix volume. In another embodiment, the annular member is an outer wall, whereas in yet another embodiment, the annular member is a second premix fuel manifold.